



02-06-06

1FW 1634

Express Mail No.: EV 666039048 US

IN THE UNITED STATES PATENT AND
TRADEMARK OFFICE

Application Number: 09/744,675
Filed: January 29, 2001
Applicants: Edward L. Squires, Patrick M. McCue and George E. Seidel
Title: Equine System for Non-Surgical Artificial Insemination

Group Art Unit: 1634
Examiner: Carla J. Myers

Assignee: Colorado State University through its agent Colorado State University
Research Foundation
Attorney Docket: XY-Equine3-USNP
Customer Number: 33549

LETTER OF TRANSMITTAL

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Enclosed with this correspondence are the following documents:

1. Information Disclosure Statement pursuant to 37 CFR §1.97(b)(3) and a copy of each Foreign and Other reference cited;
2. This Letter of Transmittal; and
3. A Certificate of Express Mailing for each document and a return receipt post card.

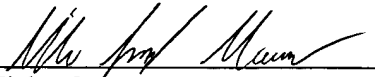
Please confirm receipt of the documents by applying your date stamp on the enclosed postcard and returning it to me.

I have this 3 day of February, 2006, either myself personally or through my direction of staff at this office, deposited all of the items in the above letter of transmittal with the United States Postal Service as Express Mail, postage prepaid, in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria VA 22313-1450.

Dated this 3 day of February, 2006.

Respectfully Submitted,
SANTANGELO LAW OFFICES, P.C.

By:


Misha Gregory Macaw
Attorney for Assignee
USPTO Reg. No. 55,417
125 South Howes, Third Floor
Fort Collins, Colorado 80521
(970) 224-3100



Express Mail No.: EV 666039048 US

IN THE UNITED STATES PATENT AND
TRADEMARK OFFICE

Application Number: 09/744,675
Filed: January 29, 2001
Applicants: Edward L. Squires, Patrick M. McCue and George E. Seidel
Title: Equine System for Non-Surgical Artificial Insemination

Group Art Unit: 1634
Examiner: Carla J. Myers

Assignee: Colorado State University through its agent Colorado State University
Research Foundation
Attorney Docket: XY-Equine3-USNP
Customer Number: 33549

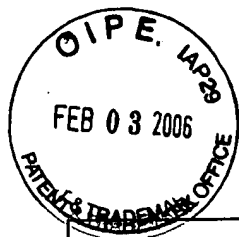
CERTIFICATE OF EXPRESS MAILING

I, Cheryl A. Swanson, hereby certify to the truth of the following items:

1. I am an employee of Santangelo Law Offices, P.C., 125 South Howes, Third Floor, Fort Collins, Colorado 80521.
2. I have this day deposited the attached Information Disclosure Statement Pursuant to 37 CFR §1.97(b)(3) and a copy of each Foreign and Other reference cited; Letter of Transmittal; and return post card with the United States Postal Service as Express Mail, postage prepaid, for mailing to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria VA 22313-1450.

Dated this 3rd day of February, 2006.

Cheryl A. Swanson
Cheryl A. Swanson



Express Mail No.: EV 666039048 US

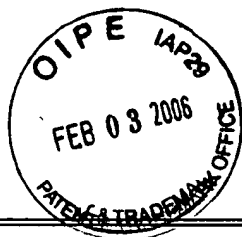
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	APPLICATION NO:	09/744,675
	FILING DATE:	January 29, 2001
	FIRST NAMED INVENTOR:	Edward L. Squires
	ART UNIT:	1634
	EXAMINER NAME:	Carla J. Meyers
	DOCKET NO:	XY-Equine3-USNP

I. US PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NO. & KIND CODE (if known)	PATENTEE OR APPLICANT NAME	PUB'N DATE	Pages, Columns, Lines Where Relevant Passages Or Relevant Drawings Appear
	2005/0003472 A1	Muhammad, A.	1/6/2005	
	2005/0112541 A1	Durack, G.	5/26/2005	
	2005/0214733 A1	Graham, J.A.	9/29/2005	

II. FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	Foreign Patent Document Country Code, Number, Kind Code (if known)	PATENTEE OR APPLICANT NAME	PUB'N DATE mm-dd-yyyy	TRANSLATION	
				Yes	No
	EP 606847 A2	National Institute of Animal Husbandry (JP)	7/20/1994		
	WO 2005/095960 A1	Ludwig, C.	10/13/2005		
	WO 2005/095590 A2	Ludwig, C	10/13/2005		
	WO 2005/094852 A2	Graham, J.	10/13/2005		
	WO 02/41906 A2	Pharmacia Corporation	05/30/2002		
	WO 2004/059282 A2	Nagappan, M.	7/15/2004		
	WO 2004/003697 A2	Monsanto Technology LLC	10/8/2004		
	WO 2004/104178 A3	XY, Inc.	12/2/2004		



III. OTHER REFERENCES

EXAMINER INITIAL	Document
	European Regional Patent Application No. 99 937 611.4; Partial Search Report dated 05/25/2004
	European Regional Patent Application No. 99 937 611.4; Examination Report dated 09/27/2004
	European Regional Patent Application No. 99 937 611.4; Examination Report dated 08/11/2005
	New Zealand Patent Application No. 509434; Examination Report dated 09/03/2003
	New Zealand Patent Application No. 509434; Examination Report dated 04/16/2004
	New Zealand Patent Application No. 509434; Letters patent dated 07/29/2004
	New Zealand Patent Application No. 509434; Examination Report dated 07/19/2005
	New Zealand Patent Application No. 509434; Letters patent dated 07/29/2004
	New Zealand Patent Application No. 527659; Examination Report dated 08/25/2003
	New Zealand Patent Application No. 527659; Examination Report dated 07/22/2005
	New Zealand Patent Application No. 527659; Examination Report dated 07/19/2005
	New Zealand Patent Application No. 527659; Examination Report dated 09/21/2005
	New Zealand Patent Application No. 527659; Examination Report dated 08/22/2005
	New Zealand Patent Application No. 540993; Examination Report dated 07/05/2005
	Seidel, G. E. Jr., "Fertility of Bulls on the Edge of the Dose-Response Curve for Numbers of Sperm per Inseminate"; Proceedings of the 17th Technical conference on Artificial Insemination & Reproduction, 1998
	Hollinshead, F.K. et al. "In vitro and in vivo assessment of functional capacity of flow cytometrically sorted ram spermatozoa after freezing and thawing." Reprod. Fertil. And Develop. 2003. Vol 15, pp 351-359
	Hollinshead F. K. et al. "Production of lambs of predetermined sex after the insemination of ewes with low numbers of frozen-thawed sorted X- or Y- Chromosome-bearing spermatozoa", Reprod. Fertil. And Develop. 2002, vol. 14, pp 503-508
	Hollinshead F. K. et al. "Sex-Sorting and Re-cryopreservation of Frozen-Thawed Ram Sperm for In Vitro Embryo Production" Theriogenology , Vol. 59. (2003) pp. 209
	Dhali et al. Vittrification of Buffalo (Bubalus Bubalis)Oocytes, Embryo Theriogenology Vol 53, pp 1295-1303 (2000)
	Borini et al. Cryopreservation of Mature Oocytes: The use of a trypsin inhibitor enhances fertilization and obtained embryos rates, Fertil. Steril. (1997), Vol 68 (Suppl.)
	Hamamatsu Photonics K.K. Electronic Tube Center, Photomultiplier Tubes, Brochure Dec. 1997
	Johnson, L. A., et al. The Beltsville Sperm Sexing Technology: High-speed sperm sorting gives improved sperm output for In Vitro fertiliation and AI, Journal of Animal Science, Vol. 77, Suppl 2/J, Dairy Sci. Vol. 82, Suppl. 2/1999 pp 213-220
	Peters D., The LLNL high-speed sorter: Design features, operational characteristics, and bioical utility, Cyometry, 6:290-301 (1985)
	Rens W., et al Slit-scan flow cytometry for consistent high resdolution DNA analysis of X- and Y- chromosome bearing sperm, Cytometry 25:191-199 (1996)
	van Munster, E. B. Interferometry in flor to sort unstained X- and Y-Chromosome-Bearing Bull Spermatozoa, Cytometry 47:192-199 (2002)



	Scmid, R. L., et al. Effects of follicular fluid or progesterone on <i>in vitro</i> maturation of equine oocytes before intracytoplasmic sperm injection with non-sorted and sex-sorted spermatozoa, <i>Journal of Reproduction and Fertility</i> 56:519-525, 2000
	Brink, Z et al. A reliable procedure for superovulating cattle to obtain zygotes and early emryos for microinjection, <i>Theriogenology</i> Vol. 41, p 168, (1994)
	Spectra-Physics, The Solid State Laser Company, "Vanguard 350-HMD 355, User's Manual, December 2002
	Photon, Inc. Light Measuring Solutions, NanoScan for High-powered beam Applications, 2005
	Fluorescence Lifetime Systems, www.picoquant.com , 1/28/2005 pp 2
	NCI ETI Branch, Flow Cytometry Core Laboratory, http://home.ncifcrf.gov/ccr/flowcore/ndyag.htm , pp 5, 5/11/2004
	NCI ETI Branch, Flow Cytometry Core Laboratory, http://home.ncifcrf.gov/ccr/flowcore/lrll.htm , pp 14, 5/11/2004
	Saacke, R.G., Can Spermatozoa with abnormal heads gain access to the ovum in artificially inseminated super- and single-ovulating cattle?, <i>Theriogenology</i> 50:117-128. 1998.
	Hawk, H.W., Gamete Transport in the Superovulated Cow. <i>Theriogenology</i> : January 1998 Vol. 29 No.1 pp.125-142
	Blecher, S.R., et al. A new approach to immunological sexing of sperm, <i>Theriogenology</i> , 59, pp. 1309-1321, 1999 Vol.
	Wheeler, M. B., et al. Application of sexed semen technology to in vitro embryo production in cattle, <i>Theriogenology</i> , Vol 65 (2006) 219-227
	Garverick, H. A., et al. mRNA and protein expression of P450 aromatase (AROM) and estrigen receptors (ER) α and β during early development of bovine fetal ovaries; The society for the study of reproduction 38th annual meeting July 24-27, 2005; Abstract only
	Bodmer, M., et al., Fertility in heifers and cows after low does insemination with sex-sorted and non-sorted sperm under field conditions; <i>Theriogenology</i> , Vol 64, (2005) 1647-1655
	Schenk J. L., et al. Embryo production from superovulated cattle following insemination of sexed sperm, <i>Theriogenology</i> , 65 (2006) 299-307
	Garner, D. L., Flow cytometric sexing of mammalian sperm, <i>Theriogenology</i> , (2006) pp 15
	Habermann F. A., et al., Validation of sperm sexing in the cattle (<i>Bos taurus</i>) by dual colour flourescence in situ hybridization; <i>J Anim Breed Genet.</i> 2005 Apr; 122 Suppl 1:22-7 (Abstract only)
	Johnson, L. A., Sexing mammalian sperm for production of offspring: the state-of-the-art; <i>Animal Reproduction Science</i> ; 60-61 (2000) pp 93-107